CHAPTER 2

The Framework for Watershed Management

Core Components of the Framework

Five core components constitute the statewide Watershed Management Framework for Kentucky:

1. ***Basin management units*** provide the spatial basis for coordinating watershed ecosystem protection and restoration activities in Kentucky. The management units are based on Kentucky's 12 major river basins and tributaries that drain directly to the Ohio River.
2. ***A basin management cycle*** facilitates coordinated timing of key watershed management activities within each basin management unit.
3. ***A statewide basin management schedule*** establishes a statewide calendar and a sequence for conducting key watershed management activities in basin management units and throughout the state.
4. ***Forums to support cooperative action and public participation*** reflect a concerted effort to involve all interested parties in watershed management activities to achieve better coordination, more cost-effective use of resources, and increased public support for watershed management efforts.

In This Chapter...

5. ***Basin and Watershed Management Plans*** document management priorities and Action Plans to provide a common reference guide for implementation.

Core Component 1: Basin Management Units

Basin management units provide the spatial basis for coordinating all watershed management activities in Kentucky.

There are 12 major river basins in Kentucky: Big Sandy, Green, Kentucky, Licking, Little Sandy, Lower Cumberland, Mississippi, Salt, Tennessee, Tradewater, Tygarts, and Upper Cumberland (Figure 2-1). The Ohio River also borders the state, and numerous small watersheds drain directly to its main stem. Under the Kentucky Watershed Framework, the 12 large river basins are combined with the smaller watersheds draining directly to the Ohio River to form 12 basin management units. These basin management units provide the spatial basis for coordinating watershed ecosystem protection and restoration activities.

The basin management units for the Kentucky Watershed Framework are based on 6-digit hydrologic unit codes (HUCs), within which are nested 11-digit HUCs (watersheds) (see Figure 2-2). The Framework will emphasize the 6- and 11-digit watersheds for information collection and reporting purposes. Written basin summaries will be organized by 6-digit HUCs, while watershed information will be organized by smaller 11-digit HUCs (see Basin and Watershed Management Plans section at the end of this chapter for more details on these documents).

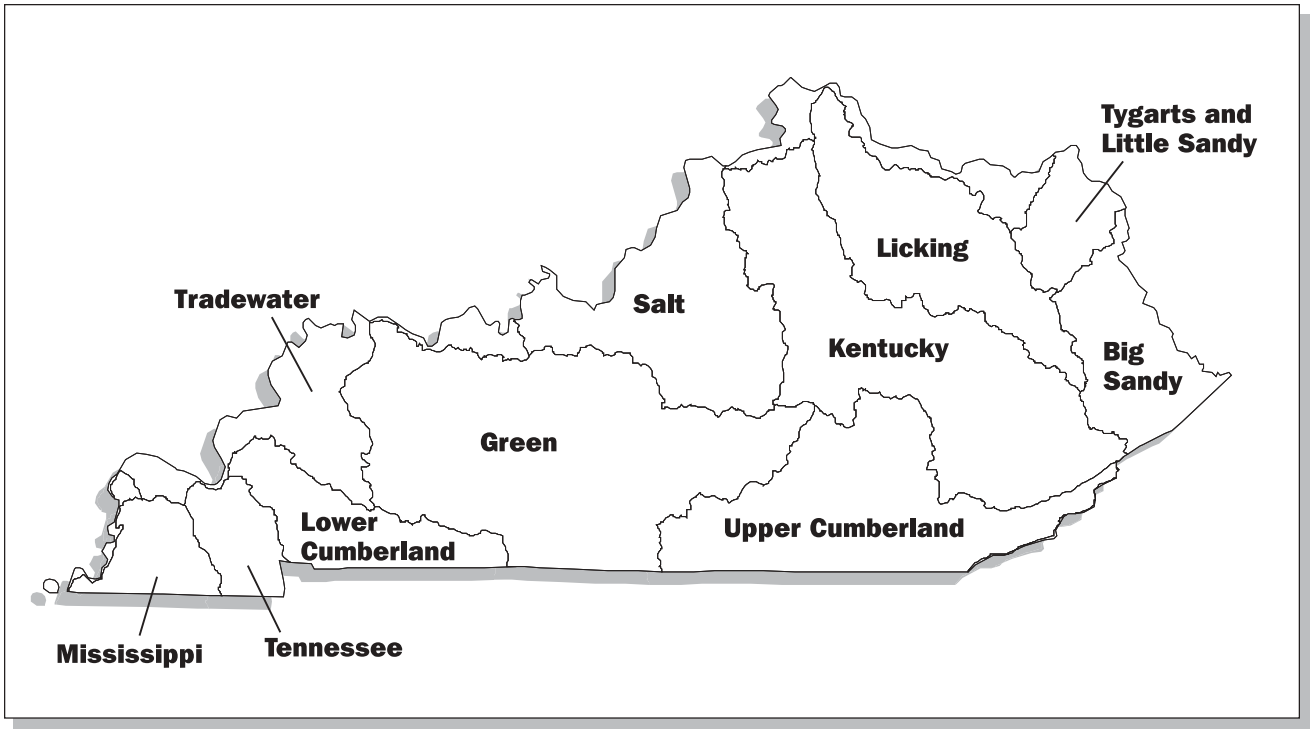


Figure 2-1. Map of Kentucky showing river basins.

Hydrologic Unit Codes

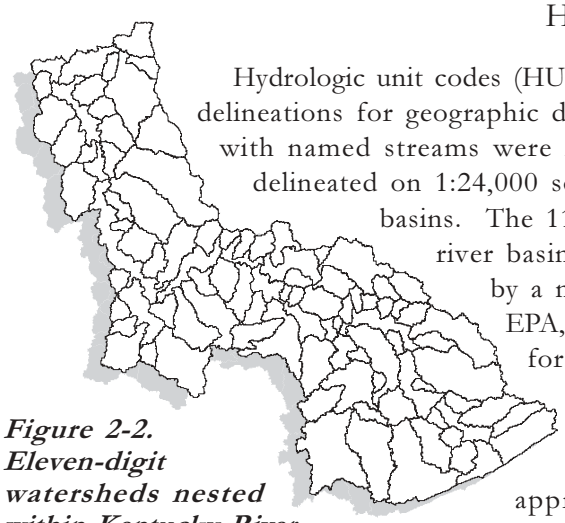


Figure 2-2. Eleven-digit watersheds nested within Kentucky River Basin (6-digit HUC).

Hydrologic unit codes (HUCs) were developed to standardize hydrologic unit delineations for geographic description and data storage purposes. All basins with named streams were identified on 1:100,000 scale maps, and then delineated on 1:24,000 scale maps. The 6-digit HUCs are major river basins. The 11-digit HUCs are watersheds "nested" within a major river basin. HUC watershed boundaries have been accepted by a number of agencies (e.g., U.S. Forest Service, USGS, EPA, NRCS, TVA, Division of Water) as the standard unit for watershed delineation within a geographic information system (GIS). Their broad base of acceptance makes HUCs a logical choice for information exchange among agencies under a watershed approach.

Core Component 2: Basin Management Cycle

Coordinating the timing and location of watershed management activities is paramount to successful implementation of a statewide watershed approach. While the state's river basins and nested watersheds provide the spatial basis for coordination, the basin management cycle is the temporal component for coordination. The cycle provides a time frame for a series of watershed management activities to occur in each basin management unit.

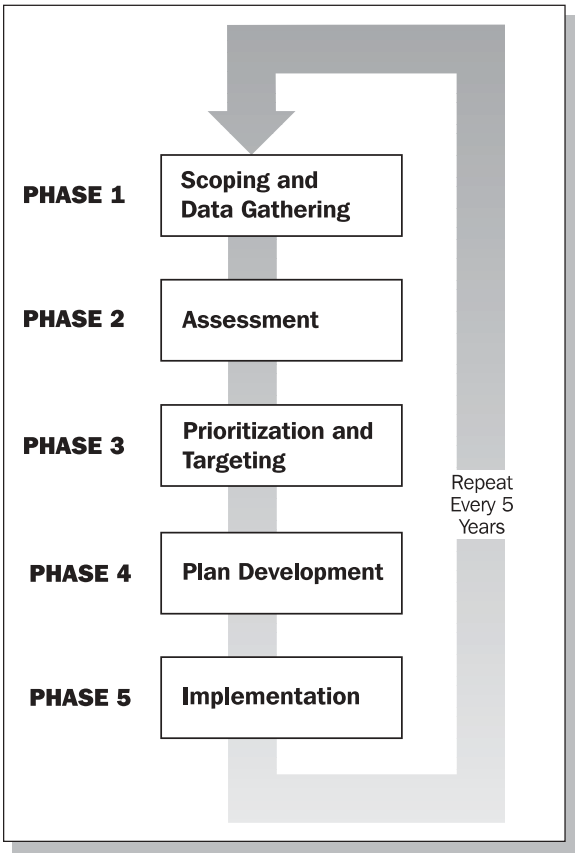


Figure 2-3. Basin management cycle.

Kentucky's basin management cycle has five activity phases that are sequenced and repeated for each basin management unit at fixed 5-year intervals. This cycle ensures that management goals, priorities, and implementation strategies are routinely updated and implemented on an ongoing basis (Figure 2-3).

The basin management cycle establishes a schedule for key watershed management activities:

1) *Scoping and data gathering*
2) *Assessment*
3) *Prioritization and targeting*
4) *Action Plan development*
5) *Implementation*

The basin management cycle is repeated every five years.

Planning and implementation are not one-time activities. The repeating management cycle reflects Kentucky Watershed Framework partners' understanding that the nature of watershed management is dynamic, and that the Framework must be flexible enough to address this dynamic nature in a systematic manner.

Phase 1: Scoping and Data Gathering

Scoping and Data Gathering:

Identify key audiences

Issue a Basin Status Report

Educate the public and create a dialogue about public concerns

Collect existing and new information

Prepare a Strategic Data Collection Plan

The first phase of the basin management cycle has several purposes:

- To identify key audiences for two-way communication about basin management goals, priorities, planning needs, and the process for developing and implementing management strategies.
- To enable technical partners to issue a joint Basin Status Report on existing conditions, ongoing management activities, and management priorities and needs within the basin management unit.
- To work with stakeholders within the basin to increase their understanding of the Watershed Management Framework, to refine short- and long-term management goals for the basin, and to identify important information gaps.
- To gather existing information and collect new information about the river basin and to assess the level of interest and resources available within the basin.

A core team of partners begin the scoping and data gathering process by identifying key audiences in the basin and preparing a Basin Status Report to communicate with those audiences about apparent watershed problems and the sources of these problems. Preparation of the report will require assigning responsibilities for compiling key pieces of information and ensuring their quality prior to public presentation. The Status Report is to be communicated through existing forums and followed up by stakeholder surveys and brainstorming sessions to refine management goals and identify important information gaps.

Interested partners then develop and implement a Strategic Data Collection Plan. Example areas to be addressed in a Strategic Data Collection Plan include data needed to characterize river basin features and conditions, review water quality standards, clarify and quantify

What is a Basin Status Report?

The Basin Status Report is the first document prepared as activities are initiated in each basin management unit under the Kentucky Watershed Management Framework. The report is written during the first phase (Scoping and Data Gathering) of the basin management cycle. The purpose of the report is to communicate conditions and trends in water quality and quantity and watershed integrity to a broad audience. The information in the Basin Status Report will assist the River Basin Team in preparing a Strategic Data Collection Plan and, in phase 3 of the basin management cycle, identifying those watersheds within the basin that are in most urgent need of attention.

causes and sources of watershed problems, calibrate assessment models, and evaluate the effectiveness of previous management efforts. The Strategic Data Collection Plan should

- Clarify the issues in the basin that require further study,
- Identify existing sources of information that can be obtained to characterize those issues,
- Specify new data to be obtained through expanded or revised monitoring activities,
- Identify resources that can be devoted to existing data compilation or new monitoring activities, and
- Outline complementary roles and responsibilities for existing data collection and monitoring.

As part of activities outlined in the Strategic Data Collection Plan, new or expanded watershed monitoring activities will be addressed in a Basin Monitoring Work Plan. Guidance for Monitoring Work Plans is currently being developed (see Chapter 4). As will be described in the guidance, raw data collected as part of new monitoring activities should be checked for quality and entered into electronic databases with corresponding geographic location identifiers, such as latitude and longitude as well as other metadata, where appropriate.

What is a Strategic Data Collection Plan?

A Strategic Data Collection Plan is prepared after all readily available data on a river basin have been gathered. The plan outlines data still needed to fully understand the land and water resource problems within the basin. The Strategic Data Collection Plan establishes objectives for new data collection efforts to be carried out and identifies physical, chemical, biological, geological, hydrologic, land use, and other data that can be collected with available resources. These new data may be drawn from sources not usually included in water quality assessments, such as information from health districts, planning agencies, or chambers of commerce. A schedule for collecting new data through revised or expanded monitoring activities is also part of the plan, which will be carried out during phases 1 and 2 of the basin management cycle by a number of agencies working cooperatively.

Phase 2: Assessment

Assessment:

Evaluate and document watershed problems

During the second phase of the basin management cycle, information gathered under the Strategic Data Collection Plan is interpreted. Quantitative and qualitative analyses are performed to evaluate and document the severity, extent, causes, and sources of stress to watershed resources. Partners are assigned assessment responsibilities according to their expertise, available resources, and willingness to participate. For example, the Kentucky Department of Fish and Wildlife Resources could focus its expertise and resources on assessing critical habitat restoration and protection needs for fish and wildlife, while the Division of Water's Water Resources Branch could assess water quantity within the basin. Key summaries of partners' assessments are compiled to

update the Basin Status Report and provide the basis for establishing management priorities and allocating resources to address the most urgent problems.

Phase 3: Prioritization and Targeting

Prioritization and Targeting:

Establishes a priority ranking for watersheds within the basin

Targets the most urgent problems for immediate attention

Prioritizing Watersheds

In the third phase of the basin management cycle, Framework partners and interested stakeholders work together to establish a priority ranking of watersheds within the basin, using 11-digit HUCs as the basis for discussion. The initial effort by partners to rank all of the 11-digit watersheds within a basin management unit will be based solely on technical factors related to human health risk and ecological impairment, including

- severity of impact or threat
- spatial scale or extent of impact or threat

In establishing priorities, it is important that partners strike a balance between (1) restoring impaired resources (the traditional emphasis of regulatory agencies) and (2) protecting resources from impending threats before significant damage is done. The prioritization methods developed for the Framework attempt to address both of these goals. (A more detailed discussion of the Framework's priority-ranking method is being developed in a separate guidance document.)

Once a preliminary ranking of watersheds in a basin has been established, it will be presented for public review. The list will then be reconsidered and adjustments made as necessary to incorporate stakeholders' values and concerns.

Once priority watersheds within a basin management unit have been identified, another process, referred to as targeting, must take place. Through the targeting process, partners and stakeholders can evaluate the feasibility and advisability of allocating limited resources to address particular issues within a priority watershed. Some issues can

Why Prioritize and Target?

In developing the Framework, partners recognize that stakeholder resources (people, funds, equipment) are limited. Effective and efficient use of these resources therefore requires that management efforts be directed where they are most needed and where they are most cost-effective. The prioritization process, whereby watersheds within a basin management unit are ranked in order of priority for management actions, helps to clarify the interrelatedness of resource management issues. It also can help partners gauge the level of public interest and support, and can sometimes create synergy for directing more resources at priority problems so that strategies can be developed for resolving the most pressing problems. In addition to prioritizing watersheds, partners will frequently be faced with the need to identify and rank lower priority watersheds in which further data collection and assessment are needed.

be so difficult to deal with that they may not be solvable or cost effective, given that human and financial resources are not infinite. After watersheds are ranked, therefore, the next activity is to figure out which problems within a priority watershed should be addressed under the Framework.

Targeting Available Resources Within Priority Watersheds

Decisions about targeting available resources toward solving particular problems in priority watersheds are expected to be consensus-based, bringing in real-world considerations to determine what is doable. Criteria that might, for example, be used to determine which problems within a watershed will be targeted include

- ***Priority ranking:*** Is it a high priority relative to other concerns in the basin management unit?
- ***Technical feasibility:*** Can the problem be solved through available means?
- ***Political feasibility:*** Are stakeholders willing, ready, interested in doing something?
- ***Cost-effectiveness:*** How much benefit is expected per dollar spent relative to other concerns?
- ***Programmatic feasibility:*** Are needed staff and financial resources available?

Action Plan Development:

Choose strategies for addressing highest priority problems

Document these strategies in draft basin and watershed Action Plans

Phase 4: Action Plan Development

Technical experts from partner agencies work with other stakeholders during phase 4 of the basin management cycle to identify, evaluate, and select management strategies to address targeted issues in priority watersheds. Sound science and stakeholder consensus are emphasized to establish cost-effective solutions that are supported or accepted by those who must take the actions. Implementation strategies are documented in draft basin and watershed Action Plans. These plans outline specific actions and funding sources to guide the efforts of Framework partners to resolve the problem. Draft Action Plans are communicated to a broader public audience and fine-tuned as necessary to strengthen public support for the final Action Plan.

What is an Action Plan?

An Action Plan is a written document that outlines specific activities that Framework partners and stakeholders will implement to address problems within a basin (basin Action Plan) or targeted issues within a priority watershed (watershed Action Plan). The activities included in an Action Plan are designed to achieve a cost-effective solution to important problems. Action Plans emphasize resource management goals, proposed resource management actions, responsible parties, funding and scheduling, and methods for tracking and evaluating success. Prior to implementation, draft Action Plans are communicated to citizens and fine-tuned to strengthen public support for the final Action Plan.

Phase 5: Implementation

Implementation:

Carry out cost-effective management activities in accordance with basin and watershed Action Plans designed to protect or restore the watershed resources

During phase 5 of the basin management cycle, Framework partners carry out and guide management actions in accordance with basin or watershed Action Plans. Probable actions include

- Conducting education and outreach to promote broad public understanding and participation
- Issuing, modifiying, or denying regulatory permits such as KPDES permits for wastewater discharges
- Awarding Nonpoint Source Program grants to facilitate implementation of best management practices
- Funding and constructing pollution control and abatement facilities
- Modifying agency programs to support the Action Plan
- Revising regulations, statutes, and ordinances
- Sharing information among partners and stakeholders regarding activities
- Targeting enforcement activities toward priority problem areas and persistent violators
- Monitoring progress of Action Plan implementation
- Providing technical assistance to stakeholders
- Supporting drinking water source protection and planning

Time Frames for Activities in Each of the Five Phases

A fixed sequence of activities throughout each five-year cycle ensures progressive implementation of watershed management activities.

Time frames for specific activities during each of the five phases are shown in Figure 2-4. These schedules are fixed to ensure timely transition from planning to implementation. The schedule does not limit when a partner can conduct an activity; those decisions remain at the discretion of the partner. Rather, the schedule indicates the time frame dedicated to integrated planning and implementation or, in other words, the time during which partners emphasize working together to accomplish a specific task. Partners have the opportunity to tie into the schedule during these key time frames, knowing that other partners will also be focusing on the same activities simultaneously. For example, a local government might monitor its drinking water watershed on a monthly basis every year. By tying into the basin management cycle during scheduled monitoring design and assessment periods, however, the locality might gain more information without increasing monitoring costs since a number of partners would be coordinating data gathering activities at that time and sharing the resulting information.

Delays in moving through the basin management cycle are discouraged. Rather, partners are encouraged to go on to the next phase even if results are less than ideal. Open-ended schedules can lead to an endless period of planning. The Framework is based on the principle that cost-effective implementation of actions that protect or restore the watershed resources should be the primary emphasis. The fixed cycle ensures progressive implementation of Framework activities. Issues that are not addressed in one iteration of the cycle can be top priorities for the next.

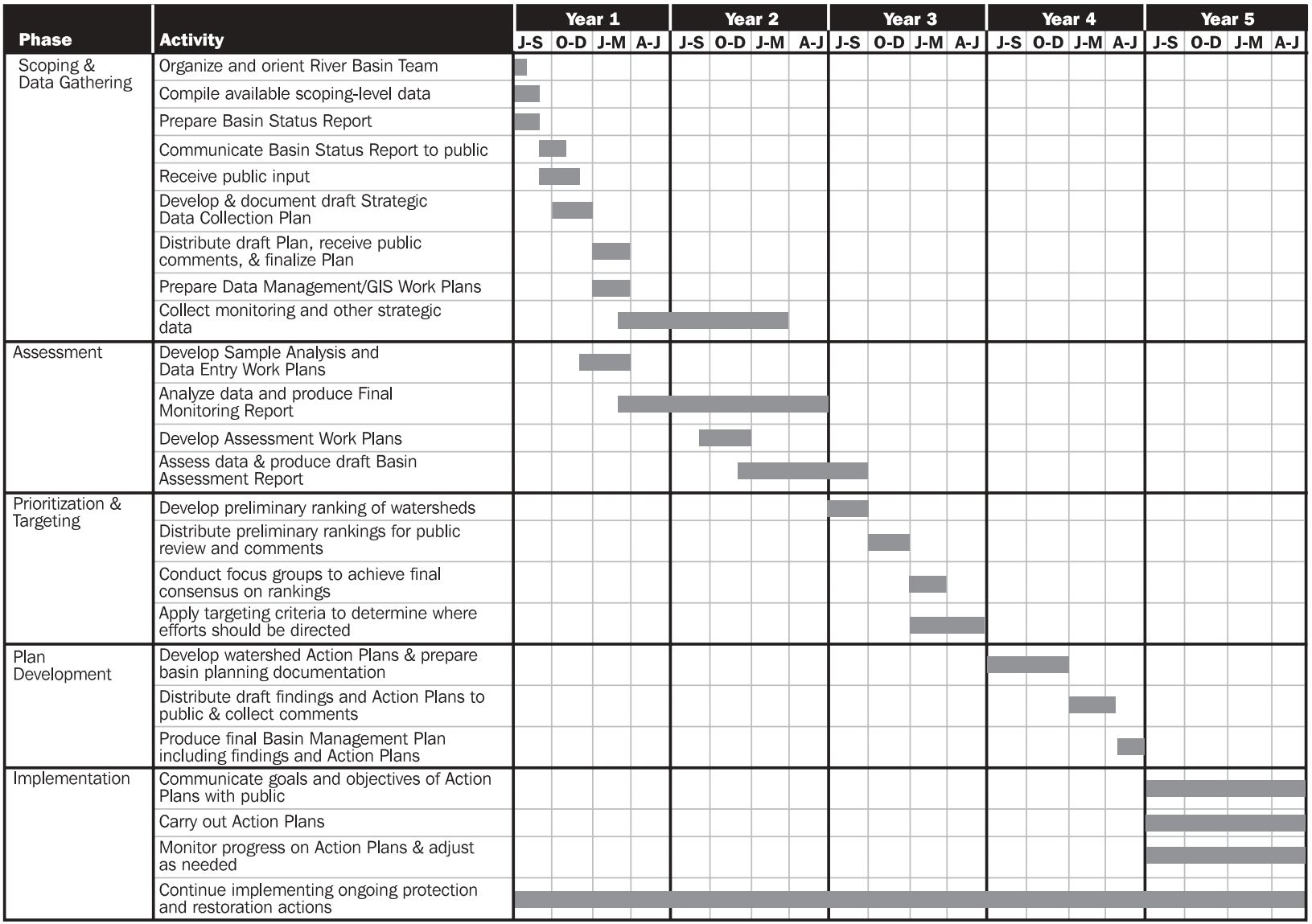


Figure 2-4. Basin management cycle activity time frames.

Core Component 3: Statewide Basin Management Schedule

A statewide basin management schedule establishes a calendar and sequence for conducting key watershed management activities within each basin management unit and throughout the state.

By creating five basin management unit groups, the schedule provides a regional focus for watershed management efforts.

The grouping also helps partners involved in watershed management on a statewide basis to balance workloads over time.

The basin management cycle will not be initiated in all basin management units at the same time for practical reasons. For Framework scheduling purposes, the 12 basin management units have been combined to form five basin management groups (Table 2-1 and Figure 2-5). These groups are designed to make it possible for partners to focus watershed management activities on one portion of the state during a given period of time, allowing more efficient use of human and financial resources. The five basin groups are based on geographical proximity of river basins to one another, equal distribution of land area, and equal distribution of critical workloads.

Table 2-1. Basin management groups for the Kentucky Watershed Framework.

Basin Management Group Number and Description	Area (mi.^{2})	Percent of Total Area
1. Kentucky River	6,966	17.2
2. Salt and Licking Rivers	9,037	22.4
3. Upper and Lower Cumberland, Mississippi, and Tennessee Rivers	9,853	24.4
4. Green and Tradewater Rivers	11,109	27.5
5. Big Sandy, Little Sandy, and Tygarts Rivers	3,424	8.5

A statewide schedule is in place for sequencing the phases of the management cycle within each of the five basin management groups. Figure 2-6 shows how the schedule for basin management cycle activities will be phased in each group of river basins (see Appendix B for a more detailed schedule). The sequence for initiating activities in the five basin management groups was established based on several factors. These included the Kentucky River Authority's presence in the Kentucky River basin, permitting issues, and Tennessee's basin management cycle within the Cumberland River basin.

Basin management cycle activities will begin in each of the five groups of river basins as follows:

1. Kentucky River Basin — July 1997
2. Salt and Licking Rivers — July 1998
3. Upper and Lower Cumberland, Mississippi, and Tennessee Rivers — July 1999
4. Green and Tradewater Rivers — July 2000
5. Big Sandy, Little Sandy, and Tygarts Rivers — July 2001

Thus, by the year 2001, activities will have been initiated, and will be ongoing, in each basin management unit. This illustrates one of the core features of the Framework: at any one point in time, different activities are happening across all five basin groups, providing regional focus and balanced workloads among partners operating statewide. More information about the transition to the statewide basin management schedule is provided in Chapter 4.

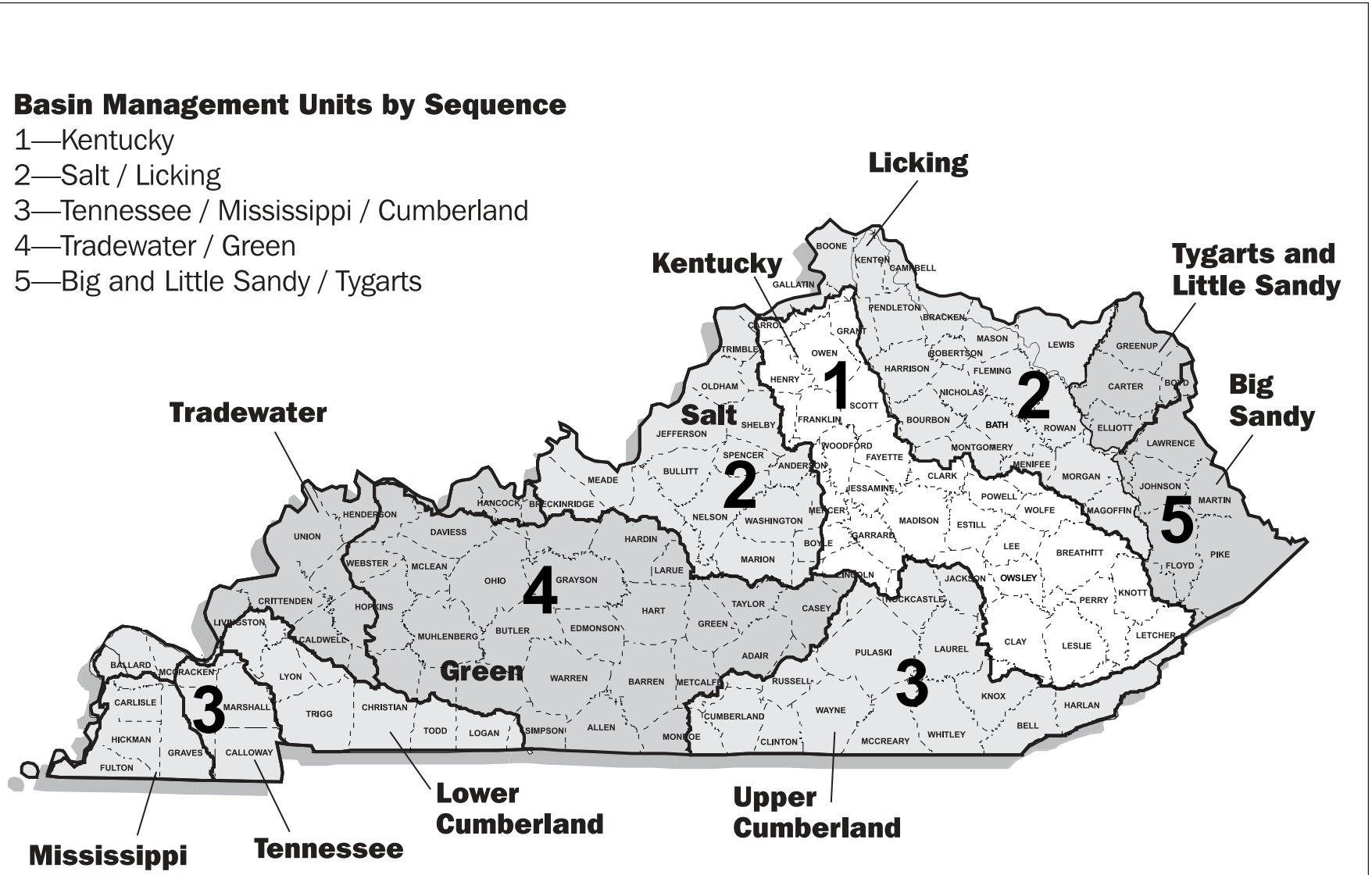


Figure 2-5. Map of basin management groups for scheduling activities.

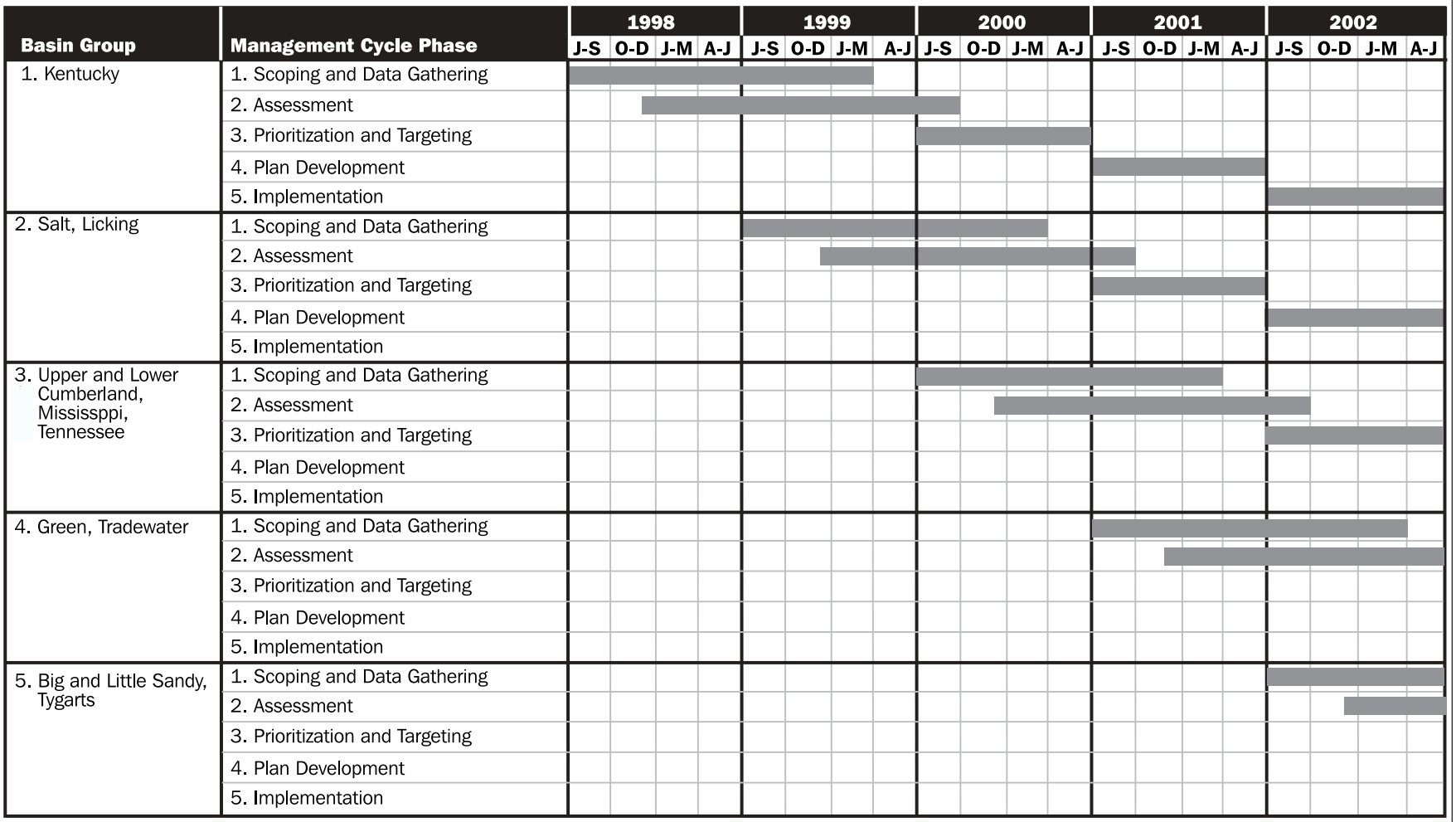
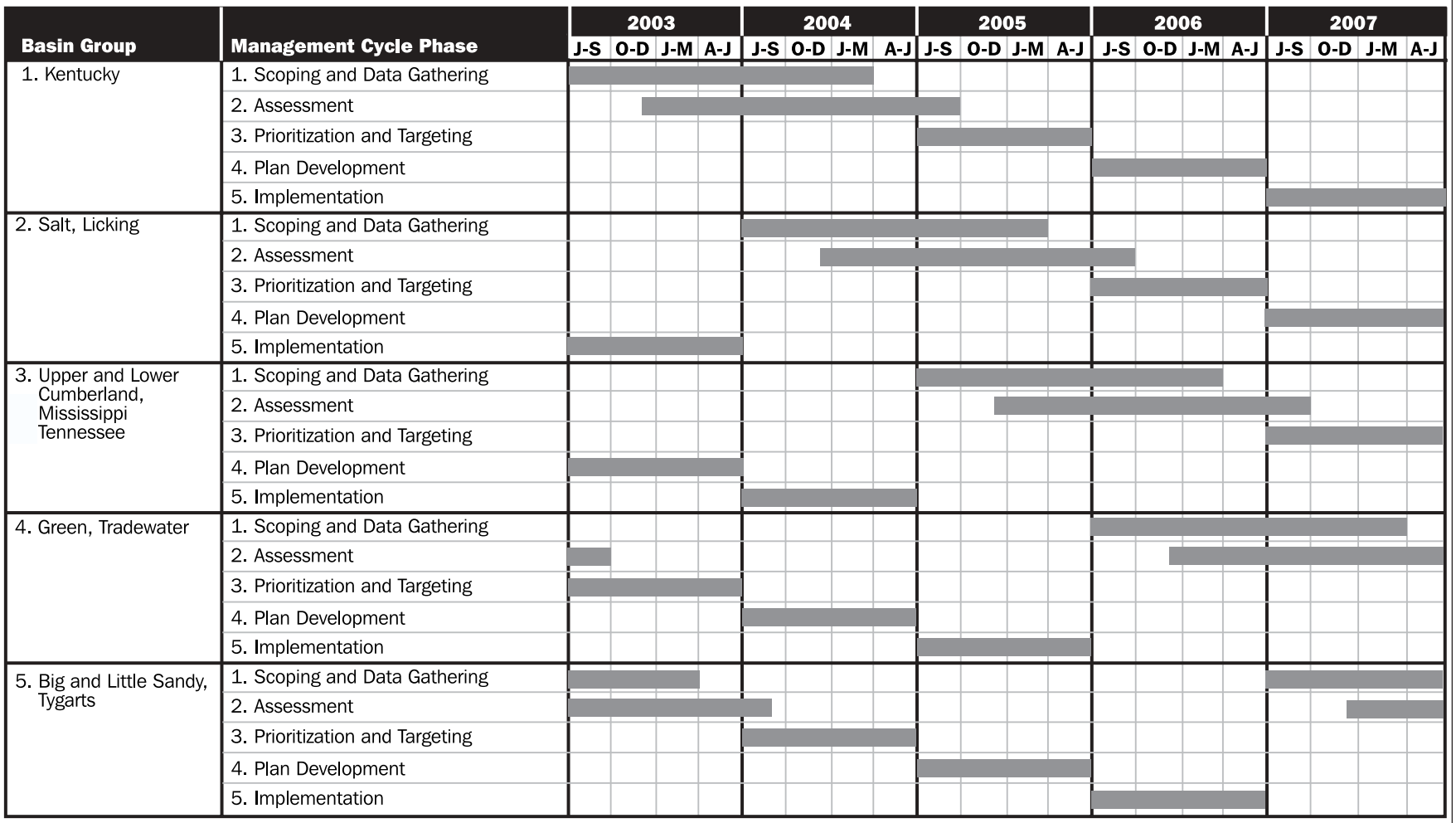


Figure 2-6. Statewide basin management schedule.



Start date for cycle is July 1 (state fiscal year calendar). **J-S**=July, August, September **O-D**=October, November, December **J-M**=January, February, March **A-J**=April, May, June

Figure 2-6. (continued)

Core Component 4: Forums to Support Cooperative Action and Public Participation

Forums to support cooperative action and public participation reflect a concerted effort to involve all interested parties in watershed management activities.

Forums to Support Cooperative Action

Partner Network

A Partner Network is being used to help coordinate and carry out watershed management in Kentucky. Involving all citizens and organizations who have a stake in watershed management, planning, and implementation is a challenge that requires the combined resources and commitment of many partners. Successful implementation of the Kentucky Watershed Management Framework will depend on the use of existing communication networks and expertise from these key partners to ensure broad-based support among the diverse audiences and participants. The Partner Network consists of agencies, organizations, and individuals willing to invest their time and resources to learn about watershed management needs, to develop and implement strategies to address those needs, and to promote awareness of and public involvement in the watershed approach. Table 2-2 lists key partners to lead and support communication and planning efforts for specific audiences considered integral to the watershed management process.

The Partner Network consists of organizations and individuals willing to invest their time and resources to learn about watershed management needs, develop and implement strategies to address those needs, and promote public involvement.

The partners in watershed management in Kentucky need an organizational structure that they can depend on to support and facilitate their efforts. Coordination is needed at three levels:

- Within *local watersheds,* to rally public support and participation of local stakeholders in watershed management.
- At the *basin* level, to assess watershed conditions and prioritize watershed management needs.
- *Statewide,* to conduct watershed management activities across the entire state, and to target and synchronize efforts by all partners.

To meet these needs, the Framework uses the forums described in the next three sections. No hierarchical relationship is associated with these forums. They are meant to coexist and address different needs at each of the three geographic levels (see Figure 2-7).

Involving all who have a stake in watershed management is a challenge that requires the combined resources and commitment of many partners.

Statewide Steering Committee

The purpose of the Statewide Steering Committee is to address issues of statewide coordination and policy related to the Framework. Members of the Statewide Steering Committee will represent a large cross section of organizational interests, including the Kentucky Watershed Framework Development Workgroup and local governments, environmental groups, business, industry, and others.

Table 2-2. Key audiences and partners.

AUDIENCE: GENERAL
Lead Partners:
Environmental Education Council
Cooperative Extension Service
Division of Conservation
Supporting Partners:
Participants for Reform Initiatives in Science and Math (PRISM)
Area Development Districts (ADDs)
Kentuckians for the Commonwealth
Kentucky Waterways Alliance
Environmental Quality Commission (EQC)
WaterWatch (DOW program)
Know Your Watershed (CTIC)

AUDIENCE: LOCAL GOVERNMENT
Lead Partners:
ADD Districts (local lead)
Dept. of Local Government (state lead)
Supporting Partners - State Level:
League of Cities
Kentucky Association of Counties
Chambers of Commerce
Health Services Cabinet
Resource Conservation & Development Councils
Supporting Partners - Local Level:
Local Solid Waste Coordinators
Kentucky Rural Water Association
Water & Wastewater Operators Association
County Health Departments
Environmental Directors Association
Health Supervisors Association
Water Supply Planning Councils

AUDIENCE: BUSINESS
Lead Partners:
Chamber of Commerce - Environmental Forum
Kentucky Farm Bureau
Supporting Partners:
Associated Industries of Kentucky
Water Well Drillers Association
Kentucky On-site Wastewater Association
Coal Operators Association
Kentucky Coal Association
Kentucky Fertilizer and Chemical Assn
Local Kentucky Utilities
Home Builders Association
Cabinet for Tourism/Tourism Association
Economic Development Cabinet
Kentucky Forest Industry Association
Kentucky Oil and Gas Association
Kentucky Rural Electric Cooperative
Publicly and Privately-owned Utilities

AUDIENCE: LANDOWNERS/LAND USERS
Lead Partners:
Kentucky Farm Bureau
Cooperative Extension Service
Conservation Districts
Supporting Partners:
Kentucky Woodland Owner Association
Kentucky Farm Alliance
Private Lands Council
Resource Conservation and Development Councils
Neighborhood Associations
Commodity Groups

AUDIENCE: CHILDREN/SCHOOLS (K-12)
Lead Partners:
PRISM
Kentucky Science Teachers Association (KSTA)
Environmental Education Council
Supporting Partners:
Project WET
Kentucky Environmental Education Association
Kentucky Association for Environmental Education
Ag and the Environment in the Classroom
4-H (partner lead with PRISM)
Vocational Agriculture (FFA)
WaterWatch

AUDIENCE: ENVIRONMENTAL ADVOCACY GROUPS
Lead Partners:
Sierra Club
Waterways Alliance
Supporting Partners:
Kentucky Resources Council
The Nature Conservancy
Kentuckians for the Commonwealth
Kentucky Conservation Committee
Kentucky League of Sportsmen
Trout Unlimited
Ducks Unlimited
Community Farm Alliance

AUDIENCE: LEGISLATORS
Lead Partner:
Legislative Research Commission
Supporting Partners:
Natural Resources & Environmental Protection Cabinet
Long-Term Policy Research Center
Legislative Committee/Subcommittees
- Agricultural & Natural Resources
- Economic Development

Environmental Quality Commission
Cabinet for Health Services
Kentucky Resources Council

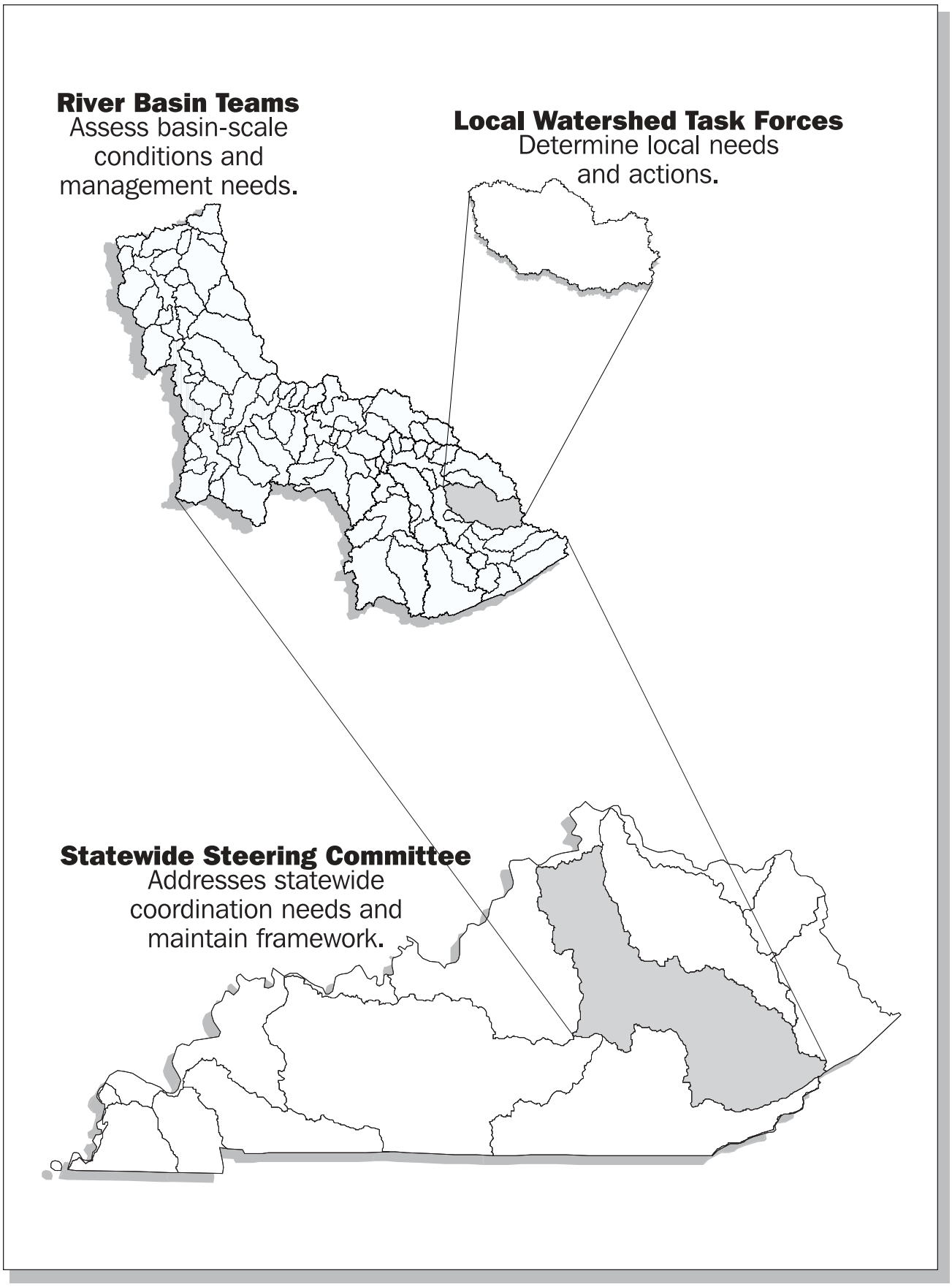


Figure 2-7. Relationship of statewide, basin-level, and watershed-level forums.

Functions of the Statewide Steering Committee will include the following:

- Representing a cross-section of organizations
- Coordinating watershed management activities statewide
- Communicating activities and exchanging ideas
- Identifying Basin Coordinators (see page 2-20)
- Recruiting River Basin Team members (see below)
- Identifying Local Watershed Task Force members
- Developing policy
- Resolving disputes
- Designing the statewide Watershed Management Framework
- Supporting framework implementation
- Evaluating and updating the Framework

A Statewide Steering Committee will address issues of statewide coordination and policy, facilitate communication, and evaluate how the Framework is working.

Members will represent a wide cross section of interests.

Other Forums That Complement the Statewide Steering Committee

Many existing groups and forums (some of which are listed below) can provide important building blocks for the Statewide Steering Committee of the Kentucky Watershed Management Framework. These groups or forums address specific issues that relate directly to the Framework mission. Their participation and involvement in developing and implementing the Framework will constitute an important contribution to the realization of the watershed approach in Kentucky. The Statewide Steering Committee can, in turn, provide a means of communication for these and other groups and forums that has not existed before.

Agricultural Water Quality Authority (AWQA)
Area Development District (ADD) Council
Chamber of Commerce (CofC)
Kentucky Association of Counties (KACo)
Kentucky Water Interagency Coordinating Council (KWICC)
Kentucky Waterways Alliance (KWA)
Kentucky League of Cities (KLC)
Private Lands Council (PLC)

More information about the missions of these groups is presented in Appendix C.

River Basin Teams

A River Basin Team will be formed in each basin management unit to provide a forum for carrying out joint watershed management efforts. Functions of the River Basin Teams will include:

- Developing Basin Status Reports
- Facilitating public communication and conducting outreach activities
- Developing Strategic Monitoring Plans

River Basin Teams will be formed in each basin management unit to provide a forum for conducting joint watershed management efforts.

- Assessing watershed conditions
- Prioritizing watersheds and targeting resources to issues within watersheds
- Developing Basin Management Plans
- Overseeing Basin Management Plan implementation

River Basin Team members will be skilled experts in technical fields and public relations, including

- Communication (writing, public speaking, education, outreach)
- Monitoring and assessment (physical, chemical, and biological)
- Resource management (agriculture, fisheries, forestry, groundwater, mining, surface water, wildlife)
- Modeling
- Land use planning
- GIS and data management
- Economic development

Other Forums That Complement the River Basin Teams

Several existing groups or forums have complementary roles to the River Basin Teams, including the Area Development Districts (ADD), Kentucky River Authority (*KRA),* and Tennessee Valley Authority (TVA). There will be many opportunities for these groups to participate in the River Basin Teams, and the Teams will benefit from the knowledge the other groups possess. In turn, the River Basin Teams can provide a useful forum for these groups as well as a larger context for their work. More information about the missions of these groups or forums is presented in Appendix C.

Local Watershed Task Forces will be formed or identified in watersheds where high priority problems have been identified.

The Task Forces will provide opportunities for stakeholders to develop and implement Action Plans.

Local Watershed Task Forces

Local Watershed Task Forces will be formed in watersheds where high priority problems have been identified. The Task Forces will provide a forum for local government officials, industry representatives, farming, environmental, and other stakeholder groups to participate in Action Plan development and implementation.

The functions of the Local Watershed Task Forces will include the following:

- Providing a forum for all interested parties to participate in Framework activities

- Assisting in targeting resources to issues in priority watersheds
- Developing watershed Action Plans; including establishing goals and objectives; identifying, evaluating, and selecting options; and writing plans
- Implementing Action Plans
- Coordinating with and recruiting willing local participants.

The Statewide Steering Committee and River Basin Team will work with local contacts to recruit willing participants for the Local Watershed Task Force. Local watershed groups that already exist, and that have a broad cross-section of representatives and balanced perspectives, will be encouraged by Framework partners to take on this organizational role.

Local watershed groups that already exist, and that represent a broad range of perspectives, may assume this organizational role.

Other Forums That Complement the Local Watershed Task Forces

Existing agencies and organizations will complement and contribute to the work of the Local Watershed Task Forces. These include the Soil and Water Conservation Districts, existing watershed groups, Water Supply Planning Councils, and Sanitation Districts. There will be many opportunities for these groups to participate in the Local Watershed Task Forces, and the Task Forces will benefit from the knowledge the other groups possess. In turn, the Watershed Task Forces can provide a useful forum for these groups as well as a larger context for their work. More information about the missions of these groups or forums is presented in Appendix C.

Coordination Among Forums

The activities of the Statewide Steering Committee, River Basin Teams, Local Watershed Task Forces, and Partner Network will be coordinated using three mechanisms: general administration by the Division of Water, management by Basin Coordinators, and outreach by Public Information Coordinators.

The Division of Water (DOW) will provide overall administration and leadership, ensuring coordination and communication among all partners.

General Administration

The Division of Water (DOW) has offered to take leadership responsibility for general coordination and oversight of the Kentucky Watershed Framework This is consistent with DOW's statutory authority for water quality and quantity management. A primary DOW responsibility will be to ensure that coordination and communication are maintained. This task will require that DOW take an active role in recruiting partners and maintaining partnerships by means of letters of intent, memoranda of agreement, and other mechanisms.

Basin Coordinators assigned to each basin management unit will provide key facilitation and coordination services.

Basin Coordinators

Successful management of the basin management units in Kentucky will require substantial ongoing coordination among many agencies and organizations. Basin Coordinators will be assigned to facilitate Framework activities within one or more of the 12 basin management units. Coordinators will provide key facilitation and coordination services, including facilitating dialogue and planning functions among Framework partners. The coordinators will be responsible for facilitating River Basin Team meetings and supporting the Statewide Steering Committee. Additionally, Basin Coordinators can serve as liaisons between Local Watershed Task Forces and the River Basin Teams. Basin Coordinators will make sure that partners understand how the Kentucky Watershed Framework operates and are aware of key milestone dates so that the basin schedule of activities stays on track. They will help compile information at key points along the basin management cycle, work with public information coordinators (see next section), and bring together specific partners to troubleshoot issues or carry out planning and implementation functions.

Framework partners will seek as Basin Coordinators individuals with both strong communication and organizational skills and technical backgrounds that include an understanding of the basics of all facets of watershed function and management. It is critical that the Basin Coordinators be perceived by Framework partners as highly approachable, knowledgeable about the Framework's components and operations, and capable of facilitating communication among many partners.

Public Information Coordinators will communicate the Framework mission and goals with a broad range of audiences and look for ways to involve the public on an ongoing basis.

Public Information Coordinators

Communication about the mission, goals, and activities of the Watershed Framework with a broad range of audiences must occur throughout the basin management cycle. Successfully transmitting messages that contain technical and policy information is challenging, and many scientists, engineers, and planners do it poorly. Because public and private sector support is critical to the success of any watershed management effort, the Framework includes public information coordinators.

Responsibilities of the Public Information Coordinators will include working with River Basin Teams, Local Watershed Task Forces, Basin Coordinators, and the Partner Network to prepare messages for the diverse audiences. Information about Basin Status Reports, public surveys, draft priority watershed rankings, and draft Action Plans will need to be disseminated effectively to the public. Information Coordinators will also be responsible for ensuring that information about ongoing activities and progress in basin management reach key audiences. The Coordinators will also work with the Partner Network to coordinate public input into the watershed management process.

The Public Information Coordinators should be people who have strong written and oral communication skills. They must be able to help partners take technical and policy information and make it understandable for a diverse set of audiences. These Coordinators will need to have frequent exchanges with key contacts in the Partner Network to help maintain the flow of communication.

Basin Champion

While each basin management unit will be assigned a Basin Coordinator, that person may be called upon to serve as coordinator for several basin management units. For this reason, the Basin Coordinator cannot always be a person who lives and works in a particular basin. In order to ensure that basin-specific issues are carefully monitored and articulated, and that key players and stakeholders are kept involved, Basin Coordinators will look for a volunteer in each basin to serve as Basin Champion. This individual will serve as a reference person for both the Basin Coordinator and the River Basin Team. The Basin Champion may be an employee of a partner agency or organization, either public or private. A Basin Champion must have a strong interest in the basin, be very knowledgeable about the basin and its land and water resources, and be willing to engage stakeholders in the watershed approach on an ongoing basis.

Public Participation

The Purpose and Importance of Public Participation

Public participation is critical to the success of the watershed approach.

Public participation is critical to the success of the watershed approach. The Kentucky Watershed Framework is based on the following key principles regarding public participation:

- Success of the watershed approach is dependent on early and strong efforts to educate and involve the public.
- Existing public forums and communication networks should be used whenever possible:
  - There is no reason to "recreate the wheel"; use means that have demonstrated effectiveness.
  - The public tends not to come out for special-topic meetings unless the meetings involve controversial issues; reach out to people in forums they already attend frequently.
- Methods for involving the public must be able to hold their interest.
- The public must have trust that their input and involvement will make a difference.
- Communication with the public must address both immediate and long-term watershed management needs.

Existing forums and communication networks will be used whenever possible.

Activities to Involve the Public in the Framework Process

The Kentucky Watershed Framework emphasizes two purposes for public participation: *education* and *involvement*. Rather than being tied to one specific phase of the proposed basin management cycle, education is an ongoing need. Educational approaches used will vary depending on the audience. Specific types of education should be tied to key activities within the basin management cycle and agendas of public meetings. Table 2-3 gives examples of typical relationships between audience and type of education.

Table 2-3. Audiences and purposes of education for the Watershed Approach.

Targeted Audience	Type or Purpose of Education and Involvement
General public	• Acquire basic understanding of watershed management • Learn about statewide watershed management framework • Understand opportunities and reasons for participation • Provide outreach to those who have not been involved
Local government	• Communicate technical and regulatory information - drinking water regulations and source water protection measures - wastewater discharge regulations and impacts - storm water runoff impacts and control measures - pollution prevention programs and measures • Understand roles and benefits in watershed management
Business community, including utilities	• Communicate technical and regulatory information - wastewater discharge/pretreatment regulations and impacts - storm water runoff regulations, impacts, and control measures - pollution prevention programs and measures • Understand roles and benefits in watershed management
Landowners/land users	• Communicate technical information - nonpoint source pollution impacts and control measures • Learn reasons for management and participation • Understand roles and benefits in watershed management
Legislators	• Build support for watershed management concept • Keep apprised of legislative and appropriation needs • Understand roles and benefits in watershed management
School/children	• Acquire basic understanding of watershed function and management • Develop conservation ethic at early age • Learn why and how to participate • Enhance education efforts for general public (children help parents learn)

In addition to providing opportunities for learning about watersheds and their management, the Framework should *involve* the public throughout the basin management cycle. Table 2-4 lists important types of public involvement at key points in the cycle.

Table 2-4. Important types of public involvement in the basin management cycle.

Type of Involvement	Timing Within the Basin Management Cycle
Public and stakeholder meetings	Strategically timed within - Scoping and Data Gathering (Phase 1) - Prioritization and Targeting (Phase 3) - Plan Development (Phase 4)
Outreach and education - mailings, web pages, and newsletters	Ongoing throughout basin management cycle
Surveys - input on issues and needs of basin - input on watershed priorities	During: - Scoping and Data Gathering (Phase 1) - Prioritization and Targeting (Phase 3)
Local Watershed Task Force	During Plan Development (Phase 4)
Voluntary monitoring (e.g., participate in WaterWatch)	Ongoing with emphasis on reporting during Scoping and Data Gathering (Phase 1)
Management implementation - spending time and funds	Receives emphasis during Implementation (Phase 5), but requires ongoing commitment

Core Component 5: Basin Management and Watershed Action Plans

A Basin Management Plan will be developed for each basin management unit and updated on a five-year basis according to the statewide schedule. The primary purpose of these Basin Management Plans is to provide a common reference guide for implementation of watershed management activities. Specific audiences and corresponding purposes for Basin Management Plans are listed in Table 2-5.

Basin Management and watershed Action Plans document the most urgent problems within a basin or watershed and record plans for addressing those problems.

Basin Management Plans will have four major sections (see Appendix D for an example outline):

- A ***User's Guide*** that will provide an overview of the watershed management approach and help the reader understand the purpose and organization of the Plan.
- A ***Basin Summary*** that will provide the reader with the "big picture" of the entire basin management unit. The Summary should contain physical and cultural descriptions of the entire basin management unit, information on current resource conditions, and profiles of Action Plans for priority watersheds.
- ***Watershed Summaries*** and ***Action Plans***. The Watershed Summaries will describe each 11-digit HUC in a basin management unit, including features and conditions. For priority watersheds,

These Plans provide a common reference for Framework partners and guide implementation of watershed management activities.

Action Plans will be included in the Summaries. The Action Plans will emphasize management goals and objectives, proposed management actions, responsible parties, funding and scheduling, and methods for tracking and evaluating success.

- ***Technical appendices*** that will contain more technical information on management methodologies and results.

Table 2-5. Anticipated audiences and purposes of basin planning documentation.

Audience: Who Can Use the Plans?	Purpose: How Can Plans be Used?
Governmental Framework partners (local, state, and federal)	• Meet reporting mandates • Support communication and coordination • Guide operations and policy decisions • Highlight information needs
Regulated community	• Provide education and guidance • Promote involvement • Support long-term planning
Special interest groups	• Encourage private leadership initiatives • Highlight areas of priority concern • Provide information • Promote involvement in watershed management
State legislature	• Keep legislators well-informed • Guide appropriations • Identify legislation needs
Landowners, land users (e.g., agriculture, forestry, mining, urban development, homeowners)	• Provide information • Promote involvement in watershed management strategy implementation
General public	• Raise public awareness • Generate public support for and participation in watershed management

What Is a Basin Management Plan?

A Basin Management Plan is a written plan that documents anticipated Framework activities in a particular basin management unit over a five-year period. The purpose of the Basin Management Plan is to provide a common reference guide for implementation of watershed management activities.

The Basin Management Plan consists of four parts: (1) a User's Guide that provides an overview of the watershed management approach and states the purpose and organization of the Plan, (2) a Basin Summary that describes the physical and cultural characteristics of the basin management unit as well as the condition of land and water resources, (3) Watershed Summaries for all 11-digit watersheds in the basin management unit and an Action Plan for each priority watershed, and (4) technical information on management methodologies and results.